



**Response to EPA Comments  
on the Site 09 (Allen Harbor Landfill)  
Revised Draft Final Proposed Plan  
NCBC Davisville**

**Contract No. N62472-92-D-1296  
Contract Task Order No. 0046**

*Prepared for*

**Department of the Navy  
Northern Division  
Naval Facilities Engineering Command  
10 Industrial Highway  
Mail Stop No. 82  
Lester, Pennsylvania 19113-2090**

*Prepared by*

**EA Engineering, Science, and Technology, Inc.  
2 Commercial Street  
Sharon, Massachusetts 02067  
(617) 784-1767**

*January 1997*

**29600.46.3710**

**Navy Response to EPA Comments dated 7 January 1997  
on the Site 09 (Allen Harbor Landfill)  
Revised Draft Final Proposed Plan dated 23 December 1996**

**COMMENT: 1.** Page 1, second column, second sentence. Rewrite this sentence to state, "This Proposed Plan addresses concerns that the conditions at Site 09 pose an unacceptable risk to human health and the environment."

**RESPONSE:** The recommendation has been incorporated with modification.

**COMMENT: 2.** Page 1, second column, second bullet. Change the text from "an impermeable liner" to "two impermeable layers" in order to conform to the RCRA "C" capping guidelines.

**RESPONSE:** The recommendation has been incorporated.

**COMMENT: 3.** Page 1, second column, second bullet. After the words "landfill cover", in the first line of this bullet, insert the words: "which will meet the substantive requirements of the federal Resource Conservation and Recovery Act (RCRA) Subtitle C regulations."

**RESPONSE:** The recommendation has been incorporated with the modification "of federal and state laws".

**COMMENT: 4.** Additionally, comment # 94 from EPA letter dated September 4, 1996 was not addressed in this version of the PP. "FS Chapter 4, section 4.5.1.1, Multimedia Cap and Figure 2-2; EPA does not use the term geocomposite to describe the flexible membrane liner (FML) or the geomembrane liner (GM) that should be included in the design of a RCRA "C" cap. Please change the term to either a FML or a GM. The second half of the low permeability layer that is required in the design of a RCRA "C" cap is the low permeability soil layer or an equivalent geocomposite clay liner (GCL). Please change both the text and the figure to be consistent with EPA requirements." The Revised Draft Final PP should also be changed within the text and within the figures.

**RESPONSE:** The recommendation has been incorporated.

**COMMENT: 5.** Page 2, first column, fourth bullet and p.7, first bullet. The Town of North Kingston has noted a desire to use the completed landfill cap area for bike and hiking trails. A fence on the eastern side of Sanford Road would preclude any indicated reuse of the capped

area. The Navy should exhaust the gas in only 1 or 2 locations and construct fencing around the few manifolds in order to facilitate reuse. Additionally, change the words "deed notifications" to "land use restrictions which may include deed restrictions".

**RESPONSE:** The reference to constructing a fence along Sanford Road has been removed as recommended. Fencing around landfill gas vents is a design detail which is covered by the first bullet on page 2 ("construct an appropriate landfill gas venting/management system"). The recommended change to "deed notifications" has been incorporated.

**COMMENT: 6.** Page 2, first column, fifth bullet. The NCP and 40 CFR 264 does not put a time-limit on the amount of monitoring needed during a remedial action. Remove the words "for up to 30 years" and re-word to read, "Conduct long-term monitoring of groundwater, sediment, and shellfish quality; and"

**RESPONSE:** The recommendation has been incorporated.

**COMMENT: 7.** Page 2, first column, sixth bullet. The damaged culvert may not need replacement, due to the resultant probable change in the salt content of the freshwater wetland upgradient from the landfill.

**RESPONSE:** The discussion of the culvert repair/replacement has been removed from the PRAP while recognizing that drainage of the wetlands to the west of Sanford Road is necessary and will be evaluated during the design phase. Redirection of the outfall may be required to reduce potential for scouring of the landfill toe.

**COMMENT: 8.** Page 2, first column. Put the first sentence concerning the public meeting in Bold to attract attention to the date and times.

**RESPONSE:** The recommendation has been incorporated.

**COMMENT: 9.** Page 2, second column, second sentence. Change the sentence to read, "You do not have to be a technical expert to comment - the Navy wants to hear your comments before making a final decision."

**RESPONSE:** The recommendation has been incorporated.

**COMMENT: 10.** Page 2, second column, second paragraph, first sentence. Change the sentence to read, "During the comment period, the public is invited to review the documents and correspondence which support the Proposed Plan."

**RESPONSE:** The recommendation has been incorporated.

**COMMENT: 11.** Page 2, second column. Change the heading to the box to read, "Documents are available for review at the following locations:"

**RESPONSE:** The recommendation has been incorporated.

**COMMENT: 12.** Page 3, first column, second bullet. Bold face the text within the parenthesis.

**RESPONSE:** The recommendation has been incorporated.

**COMMENT: 13.** Page 3, second column, first paragraph, third sentence. The "reported 2-ft soil cap" may have included contaminated soils or may have placed discontinuously. The conclusions of the Allen Harbor EEZ evaluation of the ERA indicate moderate to high risks to omnivorous small mammals such as the short-tailed shrew feeding in habitat associated with landfill soils, particularly from metals and PCBs. Remove the words, "and a reported 2-ft Soil Cap was placed over the fill materials."

**RESPONSE:** The recommendation has been incorporated.

**COMMENT: 14.** Page 3, second column. Change the word, "Findings" to "Results"

**RESPONSE:** The recommendation has been incorporated.

**COMMENT: 15.** Page 3, second column. These results may be more readable in a table format with the contaminants and a check mark if they are above risk levels.

**RESPONSE:** The Preliminary Remediation Goals (PRG) were not developed for this site and, therefore, "risk levels" were not established. A table showing conservative screening levels and/or exposure modeling/TRV based HQs might mislead the public by severely overestimating risk. The Navy believes that the narrative provides a more informative summary.

**COMMENT: 16.** Page 3, second column last sentence and first sentence on p.4, first column should be moved to the discussion of "Risk Evaluations" for consistency.

**RESPONSE:** The statements are properly included in this "Findings" or "Results" section. Risk evaluation is another step which is discussed in a subsequent section.

**COMMENT: 17.** Page 4, first column, first paragraph, third sentence. Remove the words after the semi-colon ("however the Navy's computer models and geostatistical analysis support the conclusion that shallow and deep ground water do not contribute to the elevated COC concentrations in the harbor sediment or surface water.") EPA does not agree with these statements. See EPA comment letters on the RI/FS and geostatistical evaluation dated, 10-12-95, 10-20-95, 2-26-96, 9-4-96, 9-10-96, and 12-11-96.

**RESPONSE:** The phrases will remain in the document as they are considered to be relevant to the decision to implement Alternative 3 rather than Alternative 4. They will be modified to establish that this is the Navy's belief.

**COMMENT: 18.** Page 4, first column, first paragraph, sixth sentence. Remove the words, "are primarily" and replace with "may be", as the COC concentrations may be elevated due to a combination of forces that are working on the landfill.

**RESPONSE:** The phrase "are primarily" will be retained. While other forces may be working on the landfill, the weight of evidence strongly points to erosion of the face of the landfill and the term "may be" does not adequately reflect the existing data.

**COMMENT: 19.** Page 5, first column, bullets 1 & 2. These bullets are conclusions from the Marine ERA, no conclusions from the Terrestrial ERA EEZ evaluation were included in this section as was requested in the previous EPA comments on the Allen Harbor Landfill PP comments. Portion of Comment # 33 from EPA letter dated 8-29-96 was not addressed in this version of the PP. "...The Administrative Record shows that the ecological community on and near the landfill is at moderate to high risk. As suggested by NOAA in the letter to the EPA and Navy dated 8-28-96 the bullets in this section should be changed to state that the risk to the health of the subtitle area of Allen Harbor may be low, but the ecological communities near the landfill are at moderate risk. Additional bullets should be added to describe the risks to the terrestrial receptors, such as:

- Potential risks to terrestrial wildlife from existing site conditions (e.g., contaminants in soils and sediment) were examined in the Facility-Wide Freshwater and Terrestrial ERA performed in support of the RI. The conclusions of the Allen Harbor EEZ evaluation of the ERA indicate moderate to high risks to:

**carnivorous, wading birds such as the great blue heron feeding in marine marshes and intertidal habitats, particularly from PCBs, pesticides and metals;**

**omnivorous small mammals such as the short-tailed shrew feeding in habitat associated with landfill soils, particularly from metals and PCBs;**

**carnivorous small mammals such as the mink feeding in aquatic habitat associated with marine marshes, particularly from PCBs, PAHs and metals.**

**RESPONSE:** The paragraph and bullets which discuss the ecological risk assessments have been revised to more clearly present the results of both the Freshwater/Terrestrial ERA and the Marine ERA. The recommended additional information for the discussion of the Freshwater/Terrestrial ERA has been incorporated.

**COMMENT: 20.** Page 6, column 1, second sentence. Remove the words, "geocomposite liner". Replace with either a GM or FML and a compacted clay liner or a GCL". See above comment.

**RESPONSE:** The recommendation has been incorporated.

**COMMENT: 21.** Page 6, column 1, line 21. Replace the words "deed notification" with "land use restrictions which may include deed restrictions".

**RESPONSE:** The recommendation has been incorporated.

**COMMENT: 22.** Page 6, column one, first paragraph, last sentence (line 24). Insert, insert the following sentence after the last sentence under Alternative 3:

**It should be noted that the Navy believes that the multi-media cap itself will be sufficient to reduce the risk from COC at the site. If during the required long term monitoring under this alternative, it is determined that capping alone has not reduced site risks to acceptable levels, the Navy will be required to take additional measures, (such as barrier walls or other appropriate measures).**

**RESPONSE:** The suggested insertion is not necessary and is adequately addressed by the long-term monitoring. It will not be included.

**COMMENT: 23.** Page 6, column 2, second paragraph, second sentence. In the spirit of cooperation, the EPA has decided to allow the Navy to attempt to

prove that the vertical barriers are not required to reduce the risk from COC at the site. If during the required long term monitoring it is determined that capping alone has not reduced site risks to acceptable levels, the Navy will be required to implement additional controls. Therefore, insert the words, "The Navy believes that" before the words, "vertical barriers".

**RESPONSE:** The BCT agreed at the 13 December 1996 meeting that vertical barriers or a contingency specifically addressing vertical barriers would not be required at this time. Long-term monitoring (LTM) will be performed to demonstrate the effectiveness of the remedy implemented and any further actions will be based on the results of the LTM.

**COMMENT: 24.** Page 6-7, "Comparison of Alternatives." A more detailed comparison of the alternatives is required, including a summary of whether or not they meet the nine criteria. For example, it should be noted that Alternative 4 (the soil cap) does not meet ARARs because it does not meet the requirements of RCRA Subtitle C. See EPA comments 110-124 in the FS comment letter dated September 4, 1996. Attached is a sample proposed plan in the fact sheet format. The level of detail contained in this proposed plan for the "Comparison of Alternatives", including the comparison chart, should be used in the Allen Harbor proposed plan. The chart would have plain circles for all of the first 5 criteria for the No Action alternative and a filled in circle for the implementation criteria. The Alternative 2 - Soil Cap would have half-filled in circles for the first, third, fourth, and fifth criteria; with a plain circle on the second and a filled in circle for the sixth criteria. The Alternative 3 - Multimedia Cap and Alternative 4- Multimedia Cap with Vertical Barriers would have filled in circles for all six criteria noted in the chart. Cost would be as noted in the revised PP. EPA's preferred alternative would be Alternative 3 - Multimedia Cap.

**RESPONSE:** This PRAP has been carefully drafted to comply with the requirements of the NCP, 40 CFR 300.430(f)(2), without including discussion of the issues about which we disagree in an effort to provide a document with a positive theme which will not confuse the public. The chart as proposed would serve to mask differences between Alternatives 3 and 4 and would not serve a useful purpose for this PRAP.

**COMMENT: 25.** Page 6, column 2, second paragraph, third and fourth sentences and p.7, first column, first and second sentences. Remove all these sentences. EPA does not agree with the Navy's interpretation of the RI results. See above comments.

**RESPONSE:** See response to comment #17.

**COMMENT: 26.** Page 7, first column, second paragraph, first sentence. Remove the sentence and replace with the following, "The Navy believes that the primary migration pathway for COC from the landfill to shoreline sediment is through site erosion and overland runoff, which will be controlled by the landfill cap and shoreline stabilization. This cap will also eliminate infiltration and will reduce leachate generation."

**RESPONSE:** As discussed in response to comment #18, the weight of evidence supports the use of the modifier "primary" without the need to attribute the interpretation of the evidence to a single party. The second sentence has been modified and incorporated.

**COMMENT: 27.** Page 8, Glossary, *Geocomposite liner*. Remove this definition since the EPA does not use this term. See above comments for replacement terms.

**RESPONSE:** The recommendation has been incorporated.

**COMMENT: 28.** Page 9, Glossary, *Multimedia Cap*. Cap constructed in accordance with RCRA "C" guidelines contain two low permeability layers. Remove the words, "a low-permeability layer" and replace with "two low permeability layers". See above comments.

**RESPONSE:** The recommendation has been incorporated.

**COMMENT: 29.** Page 9, Glossary, *Remedial Alternative*, line 2. Insert the words "lead agency and" before the word EPA.

**RESPONSE:** The recommendation has been incorporated.

**COMMENT: 30.** Page 9, Glossary, *Resource Conservation and Recovery Act*, line 2. Delete the words "enacted in 1976" and insert the word "Federal" before "legislation".

**RESPONSE:** This term has been eliminated from the glossary.

**COMMENT: 31.** Figure 3. Remove the term geocomposite liner or equivalent and include two low permeability layers per RCRA "C" requirements. See above comments.

**RESPONSE:** The recommendation has been incorporated.



**COMMENT: 32.** Add a comment sheet for the public to tear off and send back to Phil.

**RESPONSE:** The recommendation has been incorporated.